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RENEWABLE RESOURCE DEVELOPMENT PROGRAM

1981 GRANT EVALUATION AND RECOMMENDATIONS

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Presented to the
Forty-seventh Montana Legislature

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MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
WATER RESOURCES DIVISION



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Renewable Resources Development Program

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Grant Recommendations for FY 82 and 83

as Presented to the Forty-seventh Montana Legislature

RRD REPORT

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I. INTRODUCTION

A. Description of Program

The purpose of the Renewable Resources Development Program (RRD) is to utilize funds provided by the coal severance tax to promote the development of Montana's renewable resources.

The law establishing this program (enacted in 1975) states that the purpose of the program is to "develop renewable natural resources that will preserve for the citizens the benefit of the state's natural heritage and to ensure that the quality of existing public resources such as land, air, water, fish, wildlife, and recreational opportunities are not significantly diminished by developments supported by this part." In order to do this the Renewable Resources Development Program may provide funds: "for the purchase, lease, or construction of projects for the conservation, management, utilization, development, or preservation of the land, water, fish, wildlife, recreational, and other renewable resources in the state; for the purpose of feasibility and design studies for such projects; for development of plans for the rehabilitation, expansion, or modification of existing projects; and for such other and further similar purposes as the legislature may approve".

This program receives 2 1/2 percent of that half of the coal severance tax not allocated to the Constitutional trust fund, or 1 1/4 percent of the entire coal severance tax. Approximately \$2 million was allocated from this fund for approved projects in the current biennium (FY 80 and 81) and approximately \$3 million is projected for the upcoming biennium (FY 82 and 83) to be available for the projects recommended in this report.

The administrative procedure has been the same since the program was instituted in 1975. Applications for RRD grants and loans are submitted to the Montana Department of Natural Resources and Conservation (DNRC) by July 1 in each even-numbered year. DNRC evaluates the applications, and makes recommendations to the Governor as to which applications should be funded and in what amount. The Governor makes formal recommendations to the Legislature on the twentieth day of the session, and the legislature makes the final decision on which grants and loans are awarded.

II. EVALUATION PROCEDURE

A. Intent of the Department in Administering the Program

The mandate of the RRD law is broad-based, the Department has developed policy guidelines to be used in administering this

program according to the intent of the law. There are three rejection criteria:

1. Projects which are solely for research will not be funded.
2. Projects whose primary benefits are nonpublic and which are not financially feasible will not be funded.
3. The application is not for a "project" as described by the enabling legislation. The purpose of a project is the conservation, management, utilization, development or preservation of the land, water, fish, wildlife, recreational and other renewable resources. Projects are generally structural or involve some physical change in the environment, although feasibility studies for projects also qualify for RRD funding.

The policy guidelines which the Department developed to evaluate the merits of the applications are:

1. The Department will encourage projects whose benefits could potentially be statewide.
2. The Department will encourage applications for projects with benefits that are primarily public.

3. The Department will encourage applications for projects which will conserve energy and resources.

4. DNRC emphasizes that RRD grant funds should be used to fund irrigation projects up to a maximum grant level from all sources of 55 percent of the total project cost, parks and public works construction projects up to 75 percent if the project has no private benefits, and projects which are unique to Montana and would not be instituted without RRD funding up to 100 percent of the total project costs. This was done because irrigation projects are revenue producing which defrays the remaining 45 percent of the cost. On the other hand, there is no profit involved in the development of parks and other public works, however, the ceiling was held at 75 percent since taxes can be levied to supplement the grant or loan. For example, if a community receives a 35 percent grant toward the cost of a public works project from a source other than RRD, the maximum amount of RRD grant funds which may be awarded is 40 percent of the total project cost for a total grant level of 75 percent.

5. The Department encourages applications for loans rather than grants so that the RRD fund can be renewed with loan repayments and these monies can be used repeatedly. The percentages in guideline #4 will be increased up to 100 percent if the application is for a loan.

6. The Department will encourage applications from sponsors who have received funds from other sources or whose viable projects would not be instituted without RRD funding.

7. The Department will encourage projects in which the local group provides some of the funding directly in addition to applying for loans and grants.

8. The Program should provide funds for the development of new and innovative approaches, through demonstration projects, to the wise use of Montana's renewable resources. It should be used to test viable demonstration projects that might not otherwise be tested and whose results may be used to benefit other areas of the state. When such projects have proven successful, other sources of funding should be sought. A project will be recommended for funding a second time by DNRC only if it has proven unusually successful and it is shown that additional RRD funds are necessary for the project to become fully operational.

9. A project modeled after a demonstration project which has already been funded by RRD and proven successful will not be given priority as "a new and innovative approach".

10. No more than 20 percent of the total RRD funds will be recommended for a grant or loan to any single project except in unusual circumstances.

In order to apply these guidelines to individual applications, the Department has developed eight criteria. An application may receive from zero to ten points for each of these criteria. Those projects with the highest number of points will be given recommended priority for funding.

B. The Criteria Used to Evaluate Projects

Specific criteria developed from the guidelines have been used to score each applicant's project; those with the highest number of points have been given the highest priority for funding. The criteria are:

- 1) Grant request: zero; loan request: ten.
- 2) Received funds from other sources; would not be instituted without RRD funding: zero to ten.

If a project receives 50 percent of its funding from other sources, it received five points, if it received 80 percent from other sources it received eight points. If a project was so unique that there were no other funding sources available it could be given points under this criteria.

- 3) Projects whose benefits would be entirely public: zero to ten.

In assigning point scores for benefits to the public, several different categories were considered; social, economic and environmental benefits. If the primary use would be by the public as a whole rather than an individual or a small group, more points were assigned to the application. For example, the application for recycling and resource recovery using solid waste scored higher than most applications because public facilities will be developed that can serve as a model for other communities. Also, the application of the Triangle Conservation District scored better than that of the East Bench Irrigation District because a greater percentage of Montana's population would benefit directly from the saline seep work.

Economic benefits can accrue to a group larger than those having primary use of the project. For instance, improvements to the Buffalo Rapids Irrigation Project or to rangeland through the Rangeland Resource Loan Program would benefit the economy of an area. This public benefit was also considered in assigning point totals.

Several applications, Muddy Creek and Bluewater Creek in particular, would result in widespread environmental benefits as well as benefits to the agricultural operators in the area, and these environmental benefits were also considered.

The final point total for the public benefits of a project results from the consideration of all these factors.

4) Viable demonstration project: zero to ten. A project scored high in this category if it demonstrates a new technique or solution to a problem and if its results are likely to be beneficial to a wide audience. For example, the second-growth thinning project at Lubrecht Forest scored high because it will demonstrate to managers of second-growth forests that the usually wasted thinned trees can be put to an economic use. East Bench scored lower in this category because it will be an application of a proven technology.

5) Ability to conserve energy and resources: zero to ten. Many factors which either lead to the conservation of energy or to the development of renewable resources could be considered in this category. Some of these factors are: conservation of water through water quality improvements, storage, or installation of efficient water use systems such as telemetry in an irrigation system; conservation of soils through reclamation of lands affected by saline seep or through improved range management practices; conservation of energy through installation of gravity versus pumped sprinkler systems or development of a recreation area near a population center so that people will travel shorter distances for recreation.

6) Project is effective at meeting the stated objectives: zero to ten. As a general rule, projects which will be an application of a proven technology scored higher in this category than demonstration projects. This criterion also judges the planning and workability of the proposed project, the probability of its success, and the thoroughness of the application.

7) Results have a potential for successful application elsewhere (i.e. potential state-wide benefits): zero to ten. The Triangle Conservation District Saline Seep Project scored high in this category because it demonstrated a unique solution to a widespread problem. Many of the other projects have similar potential, but they received fewer points because they addressed problems of less magnitude.

8) Has received RRD funding previously: zero if the project has received funding and ten if it has not. As described in the guidelines, short-term demonstration projects, are emphasized. A project will not be funded more than twice; applicants are encouraged to seek other sources of funding.

C. Results of Application Scoring Based on the Criteria

The rating system described above, was applied to the applications for RRD monies received by DNRC and the results are shown in Table 1.

TABLE 1. Applicants' Ranking Scores and Priorities for Funding

Project	Applicant	Grant vs. Loan	Received other Sources of fund.	Ranking Criteria				Statewide Benefits	Received previous RRO Funding	TOTAL
				Public Benefits	Viability	Conservation	Project Effectiveness			
Muddy Creek Erosion Control	Cascade County Conserv. Dist.	0	10	9	5	7	7	5	10	53
Buffalo Rapids Irrigation Proj.	Buffalo Rapids Irrig. District	0	10	6	4	6	10	4	10	50
East Bench Irrigation Proj.	East Bench Irrig. Dist. (Gravity Co.)	0	9	7	3	8	10	3	10	50
Recycling and Resource Recovery Using Solid Waste	Solid Waste Bureau DHE5	0	2	9	7	7	8	6	10	49
Feasibility and Design for the implementation of water quality	Water Quality Bureau DHE5	0	7.5	7	4	6.5	8	4	10	47
Georgetown Lake Weir Control	Anaconda-Deer Lodge County	0	6	7	7	6	6	6	10	47
Bluwater Creek Erosion Control	Carbon County Conservation Dist.	0	5	7	5	7	7	5	10	46
East Fork Reservoir Recreation Area	City of Lewis-town	0	7.5	7	2	5	10	4	10	45.5
Second Growth Forest	Lubrecht Experimental Forest-UM School of Forestry	0	3	5	8	7	7	5	10	45
Triangle Area Saline Seep Control	Triangle Conservation District	0	3	8	5	9	10	10	0	45
Control of the weed Leafy Spurge	Montana State University Cooperative Extension Service	0	0	7	7	7	6	7	10	44
Ennis Lake Thermal Problem Control	Blue Ribbons of the Big Sky Area-wide Planning Organiz.	0	0	6	7	6	6	6	10	41
Develop of Rec. Trails	DFWP	0	0	8	4	6	7	6	10	41
Rangeland Resource Development	DNRC	5	0	8	5	8	9	5	0	40
Dam Repairs	DFWP	0	0	6	2	7	10	5	10	40
Mystic Lake Dam Repairs	City of Bozeman	0	0	4	2	6	10	4	10	36
Planning for solid Waste Management	Solid Waste Bureau DHE5	0	0	8	5	5	10	5	0	33
Stream bank Preservation	DFWP	0	0	7	4	7	8	5	0	31
Lighting for Lewis and Clark Caverns	DFWP	0	0	6	0	0	10	0	10	26

III. RECOMMENDATIONS

DNRC received 27 applications for funding from the RRD Program for the '82-'83 biennium. All applications were screened by the rejection criteria; some projects were eliminated.

The remaining applications have been evaluated on how successfully they meet the intent of the RRD Program, using their score in the rating system. DNRC then makes the recommendations shown in Table 2:

Please note that recommendations have been made for more money than is currently projected to be available because there are residual funds in the RRD account.

IV. PROJECT SUMMARIES FOR ALL APPLICATIONS RECEIVED THIS BIENNIUM

The projects are presented in order of their rating followed by those projects which did not qualify for the program.

Table 2. DNRC Recommendations for RRD Grants
Awards for Fiscal Years 1982 and 1983

<u>Project</u>	<u>Applicant</u>	<u>Grant Request</u>	<u>Grant Recommendations</u>
Muddy Creek Erosion Control	Cascade County Conservation District	\$ 319,988	\$ 319,988
Buffalo Rapids Irrigation Project	Buffalo Rapids Irrigation District	230,000	180,000
East Bench Irrigation Project	East Bench Irrigation District (Gravity Co.)	1,000,000	490,000
Recycling and Resource Recovery using solid Waste	Solid Waste Bureau Dept. Health and Environmental Sciences (DHES)	400,000	400,000
Feasibility and Design for the Implementation of Water Quality Plans	Water Quality Bureau DHES	45,700	41,000
Georgetown Lake Weed Control	Anaconda-Deer Lodge County	42,858	35,362
Bluewater Creek Erosion Control	Carbon County Conservation District	121,000	121,000
East Fork Reservoir Recreation Area	City of Lewistown	28,756	28,756
Second Growth Management Lubrecht Forest	Lubrecht Experimental Forest UMSchool of Forestry	139,863	139,863
Triangle Area Saline Seep Control	Triangle Conservation District	303,755	303,755
Control of the Weed Leafy Spurge	Montana State University	30,000	30,000
Control of the Ennis Lake Thermal Problem	Blue Ribbons of the Sky Area-wide Planning Organization	125,000	125,000
Development of Recreational Trails	Department of Fish, Wildlife, & Parks	50,000	46,500
Rangeland Resource Development	Department of Natural Resources & Conservation	500,000	490,000
Dam Repairs	Department of Fish, Wildlife, & Parks	200,000	200,000
Mystic Lake Dam Repair	City of Bozeman	45,375	60,000
Planning for Solid Waste Management	Solid Waste Bureau Dept. Health & Environmental Sciences	200,000	200,000
Streambank Preservation	Dept. of Fish, Wildlife, & Parks	100,000	100,000
Lighting for Lewis and Clark Caverns	Dept. of Fish, Wildlife, & Parks	50,000	50,000
	TOTAL	<u>\$3,932,295</u>	<u>\$3,361,224</u>

A. Project: Muddy Creek

Applicant: Cascade County Conservation District

Grant Request: \$319,988

Grant Recommendation: \$319,988

Total Points: 53

Description

The Muddy Creek Project area consists of the Muddy Creek drainage ten miles northwest of Great Falls. It is bounded by Vaughn on the southeast, Power on the north, and Fairfield on the west. It is approximately 314 square miles and is made up of irrigated cropland (45,000 acres), dry cropland (55,000 acres) and rangeland (45,000 acres).

The objective of the Muddy Creek Project is to implement improved agricultural practices and companion structural projects designed to reduce the irrigation return flow to Muddy Creek and stabilize the flow of that creek, thereby substantially reducing its contribution of sediment and other pollutants to the Sun River. This will largely eliminate streambank slumping and irrigation maintenance costs, help to reduce the town of Power's water treatment costs, and re-establish the fishery and recreational environment for Muddy Creek, Sun River, and portions of the Missouri River.

The \$319,988 grant request would be used to:

1. Conduct an intensive study of irrigation water management in the area;
2. Conduct feasibility studies of onstream and offstream storage and a surge relief canal;
3. Develop a hydrology model for the Freezeout Lake-Teton River system; and
4. Expand public information in the area.

The surge relief canal would be used to divert water out of the Muddy Creek drainage into the Freezeout Lake - Teton River system during storms. This would reduce erosion in the Muddy Creek drainage. Freezeout Lake would serve as a storage reservoir and the water could be released more slowly into the Teton River. The hydrology model will predict how this diversion of Muddy Creek drainage water would affect the Freezeout Lake-Teton River system.

The public education efforts will explain the causes and consequences of erosion in Muddy Creek, and show how farm operations can be changed to minimize the problem.

Recommendation

This project was ranked number one using DNRC's guidelines for rating RRD applications. DNRC recommends granting \$319,988 to the project.

B. Project: Buffalo Rapids

Applicant: Buffalo Rapids Irrigation District

Grant Request: \$230,000

Grant Recommendation: \$180,000

Total Points: 50

Description:

The Buffalo Rapids Project presently operates four major pumping plants between Fallon and Miles City; three of these plants are manned in the summer months by temporary personnel. The stations are manually operated and lack safety devices such as bearing temperature sensors, phase sensors, and water level sensors.

A primary goal is to replace manual control operations with centralized supervisory and automatic control, and to increase the discharge and reliability of the aging pumping plants. In order to accomplish this goal it is necessary to provide a telemetry control system for the four pumping plants as well as to replace the manual controls.

A second goal is to rehabilitate those parts of the distribution system that are particularly troublesome, and require considerable operation and maintenance time and money.

A loan application for \$1.4 million has been submitted to the Water and Power Resource Service (WPRS) to accomplish most of the work.

Application for an RRD grant has been made for the following:

1. Applicant's matching money necessary to obtain a federal loan from WPRS.	\$76,000
2. District #1 share of telemetry system.	\$104,000
3. Office headquarters.	\$50,000
TOTAL	\$230,000

The telemetry system will allow the District to control four pumping stations from a central location, resulting in increased efficiency within the system. The office headquarters would house the new telemetry equipment.

Recommendation

With the exception of the office headquarters, which is not recommended for funding, this proposal meets the intent of the RRD program. DNRC recommends that \$180,000 be appropriated for this project.

C. Project: East Bench Irrigation Project

Applicant: East Bench Irrigation District (Gravity Company)

Grant Request: 1,000,000

Grant Recommendation: \$490,000

Total Points: 50

Description:

The East Bench Irrigation District was formed in 1957 and is comprised of approximately 21,800 irrigable acres. It receives water (3.1 AF/AC/YR) from the Clark Canyon Reservoir through the East Bench Canal and a series of side drop canals that supply water to pump stations, which in turn deliver the water to both buried and surface piping systems for spray irrigation through wheel lines and center pivot systems.

The Gravity Flow Company is a Special Improvement District of the Irrigation District and serves 23 landowners and 6,300 acres at the lower end of the project near Twin Bridges. These landowners propose to convert their pumped sprinkler systems to a gravity flow system. Most of the present canal system (27 mi.) would be replaced by 17 miles of pipeline. This system would alleviate low pressure problems at the lower end of the project. The conversion of pumped sprinkler to gravity would result in savings of \$13.86/acre in electricity for the pumps, as well as purchase, repair, and maintenance costs of pumps and motors. These savings would be used to finance this project. The total project cost is

\$4,006,000. The costs contributed directly by the Company are \$51,000 for right of ways, loan application costs, and restoration of existing canals. The Gravity Company has applied for a Small Projects Loan from WPRS for the maximum amount possible for this project, which is \$3,405,000. This leaves a total of \$550,000 unaccounted for.

Recommendation

DNRC finds that this project will result in substantial energy savings. It scored well in relation to other projects, therefore DNRC recommends funding of \$490,000. This figure represents 20 percent of funds projected to be available at the time the applications were reviewed--which is the largest amount the Department will recommend for a single project according to the evaluation procedure discussed previously.

D. Project: Recycling and Resource Recovery Using Solid Waste

Applicant: Solid Waste Bureau--Department of Health and Environmental Sciences

Grant Request: \$400,000

Grant Recommendation: \$400,000

Total Points:49

Description:

DHES made money available through a previous RRD grant to several counties in the state to hire consultants who investigated alternatives for solid waste management, and made recommendations as to which alternative would be best for a given area. Pre-feasibility analysis has identified several resource recovery and recycling projects throughout the state which are feasible or nearly so at this time.

DHES has applied for funds from the RRD Program to assist local governments in implementation of these projects. Most of the projects identified as feasible are for steam generation through combustion of solid waste.

There are three phases in the development of resource recovery and recycling systems: feasibility analysis; preliminary design; and actual construction. Under this grant program, local governments could apply for assistance from DHES for any one of these phases. However, such assistance can be made to only one

phase at a time. Listed below are the minimum activities for which DHES will provide assistance in each phase under the proposed grant program.

FEASIBILITY ANALYSIS

- A. Determine waste quantities and composition.
- B. Conduct a market analysis.
- C. Determine facility requirements, including an evaluation of supply versus demand, evaluation of applicable facilities, and description of the most appropriate facility (s).
- D. Analyze facility costs to include both capital and annual costs.
- E. Conduct an economic analysis to make a comparison of potential project (revenues) with the anticipated capital and annual costs of the facility.
- F. Evaluate environmental considerations.

PRELIMINARY DESIGN

- A. Detailed study of available materials from wastes generated in the project area to include, where necessary, a weighing program.

- B. Detailed analysis of alternatives identified in the feasibility analysis, including schematics and cost estimates.
- C. Preliminary design of recommended facility(s) including site layouts, equipment layouts and specifications, and detailed cost estimates.
- D. Final evaluation of environmental concerns associated with the recommended alternative.
- E. Evaluation of alternate organizational, operational, and financial strategies.
- F. Publishing a recommended implementation plan to include organizational and financial strategies, ownership and operation plan, and a detailed time schedule for implementation.
- G. Procurement of ownership and operation agreements, and all necessary licenses and permits for the location and operation of the recommended facility.

CONSTRUCTION

- A. Provide for initial operating capital.
- B. Conduct site evaluations and negotiations to secure sites.
- C. Make final design engineering and cost estimates.

- D. Finalize construction contracts.
- E. Conduct final contract negotiations with applicable markets and waste suppliers.
- F. If appropriate, conduct contract negotiations with private operating managers.
- G. Provide for financial and legal consultation as needed.

Some projects funded under this proposed grant program may not need to follow the extensive procedures detailed above. Such projects could include relatively small- scale recycling efforts such as the current Helena Newspaper Recycling Program. However, DHES intends to ensure that any project under this proposed grant program will follow procedures that will result in the establishment of long-lasting programs.

DHES has identified a number of areas in the state that could benefit from the described grant program. They are listed by development phase.

FEASIBILITY ANALYSIS: Flathead County, Missoula County, Silver Bow County, Hill County

PRELIMINARY DESIGN: Cascade, Chouteau, and Teton Counties, Deer Lodge, Powell, and Granite counties

CONSTRUCTION: Lewis & Clark, Broadwater, and Jefferson Counties, Gallatin and Madison counties, Park County

This list should not be considered complete.

Through this program, DHES would issue 100 percent grants for feasibility analysis and preliminary design projects. Construction grants would be available on a 50/50 matching basis. The maximum allowable grant for applicants under the feasibility analysis phase will be \$25,000. The maximum allowable grant for applicants under the preliminary design phase will be \$40,000. There will be no administrative funds for DHES.

Recommendation

DNRC finds that this project clearly meets the intent of the RRD Program--it will promote re-use of a renewable resource (solid waste) that is currently wasted.

With rising costs of energy, this type of project will probably become prevalent and the RRD Program intends to fund pilot projects whose results can be used as models in other areas of the state. Therefore, DNRC recommends that \$400,000 be appropriated for the project.

E. Project: Feasibility and Design for the Implementation of the Water Quality Plans

Applicant: Water Quality Bureau--Department of Health and Environmental Sciences

Grant Request: \$45,700

Grant Recommendation: \$41,000

Total Points: 47

Description

Conservation Districts have developed 208 Water Quality Management Plans for abating agricultural, silvicultural, and other water quality problems in their respective districts. The districts now must carry out these plans, which will include building public support, conducting feasibility studies for specific projects, and developing detailed plans. Federal grant funds totaling \$137,000 and administered by DHES' Water Quality Bureau are available on a 25 percent match for these activities. Most districts are not in a financial position to provide the 25 percent match, especially for projects which do not produce revenue. Water Quality Bureau is requesting a grant of \$45,700, which will be used to help the districts make the 25 percent match, but is not requesting any administrative funds in this application.

Analysis and Recommendation

This application fits the intent of the RRD program. Since the proposal is to help conservation districts make the match, DNRC

recommends that \$41,000 (90 percent of the amount requested) be allocated to the WQB for this project. Conservation districts which are able to do so are required to make a nominal contribution to the project cost.

F. Project: Georgetown Lake Weed Control

Applicant: Anaconda-Deer Lodge County

Grant Request: \$42,858

Grant Recommendation: \$35,362

Total Points: 47

Description

Deer Lodge County has submitted an application to provide the local match (\$42,858) for an Environmental Protection Agency Clean Lakes Grant. The grant is funding a two-year project to evaluate alternatives for restoration of Georgetown Lake and to develop a management plan for the lake. When this has been done, Deer Lodge County will apply for another EPA grant to implement the chosen option. According to Department of Fish, Wildlife, and Parks data, Georgetown is the most heavily used lake in the state. Its importance as a recreational resource is compounded by the lack of alternatives in the area. The Georgetown Lake Project takes on even more significance in light of the announced closure of the smelter in Anaconda; recreation and tourism will probably play an increasingly important role in the development of the local economy.

Analysis and Recommendation

This project has strong local support; Deer Lodge County had intended to provide the local match but the application is being

submitted to help alleviate the financial burden which local governments are now facing due to the plant closure in Anaconda. DNRC recommends that this application should be funded as it seems to closely follow the intent of RRD. The \$35,362 will constitute the local match, the remainder being supplied through in-kind services of various agencies.

G. Project: Bluewater Creek Erosion Control

Applicant: Carbon County Conservation District

Grant Request: \$121,000

Grant Recommendation: \$121,000

Total Points 46

Description

Bluewater Creek in Carbon County has severe erosion problems caused in part by a channel-straightening project completed in the 1950's. Dumping of excess irrigation water into the channel, and poor irrigation and livestock management practices also contribute to the problems. Erosion is adding significant amounts of sediment to Bluewater Creek and also to Rock Creek, of which it is a tributary. Agricultural land, irrigation ditches, and diversions are continually threatened.

The application from the Carbon County C.D. is to establish three structures in the stream to control the head cutting of the creek; banksloping and seeding to stabilize the bank; replacement and consolidation of irrigation canals, and fencing to keep livestock off the streambanks. In addition to the RRD grant request (\$121,000), funds will also be obtained from:

Agriculture Stabilization and Conservation Service	\$30,000
Montana Department of Fish, Wildlife, and Parks (MDFWP)	\$15,000
Landowners	<u>\$22,500</u>
TOTAL	\$67,500

Analysis and Recommendation

This project is in keeping with the intent of the RRD Program. DNRC recommends that it be funded at the full application request of \$121,000. Of this amount, \$110,500 will be spent on channel rehabilitation; the remaining \$10,500 is 14 percent of the cost of replacing and consolidating irrigation canals. With other funding, the total grant for the irrigation canals is 70 percent which is more than the 55 percent grant level allowed. However, in this instance, the work will be excepted from this maximum because it is an integral part of the rehabilitation of the creek and has public benefits. For this reason DNRC recommends that an exception to this guideline be made.

H. Project: East Fork Reservoir Recreation Area

Applicant: City of Lewistown

Grant Request: \$28,756

Grant Recommendation: \$28 756

Total Points: 45.5

Description:

The City of Lewistown has applied for RRD grant funds to develop water-based public recreation facilities at the East Fork Reservoir located on the East Fork of Big Spring Creek, 11 miles Southeast of Lewistown. The funds will be used for camp sites, a boat ramp, day use picnic areas, vault toilets, a water system, and access roads. This will be the only water-based recreation readily accessible to Lewistown.

The estimated total project costs are \$117,810. The SCS will provide 50 percent of the money, RRD will provide approximately 25 percent, and Lewistown, in conjunction with Fergus County, will contribute approximately 25 percent in in-kind services.

Analysis and Recommendation

The construction of this project will have a positive effect on the local economy and will result in energy savings because it will offer local residents an opportunity for nearby recreation. Further, Lewistown has shown considerable local interest in

developing funding sources and providing in-kind services. The Department recommends that \$28,756 be appropriated to this project.

I. Project: Second-Growth Management; Lubrecht Forest

Applicant: Lubrecht Experimental Forest; University of Montana
School of Forestry

Grant Request: \$139,863

Grant Recommendation: \$139,863

Total Points: 45

Description

Much of the state and privately owned timberland in Montana is capable of increased timber production because it is often located in the more fertile valleys and foothills. However, this production often does not develop because a large portion of these holdings support dense stands of young trees established following repeated logging during this century. Left in the present condition, these stands will never attain full productive potential, which can only be realized if the trees are thinned so they can reach a more usable size.

The traditional approach to management of these overstocked stands is called precommercial thinning, a term that implies the small individual trees which are thinned have no commercial value. This is a costly operation for the landowner, because immediate out-of-pocket investments made for thinning will not be returned as increased lumber production until as much as 20 years later. Very few landowners can afford this kind of investment, particularly at current interest rates. The purpose of this project is to

demonstrate the economic feasibility of using these thinned trees to produce a saleable product to help defray the thinning costs.

This demonstration project will establish 24 thinning plots of 10 acres each on the Lubrecht Experimental Forest. The trees will be felled and stacked in the woods, then removed to a central landing area for processing. In addition to traditional products such as posts, rails, and firewood, which can be manufactured, the felled trees will be reduced to chips for burning hog fuel to produce steam or for other energy related uses. This thinning technique will enable landowners to increase the productivity of their timberland with minimal direct costs because trees can be moved to the central landing areas using equipment that most timberland owners already have.

Information regarding the demonstration project will be disseminated. The information program will consist of guided tours and workshops where the system can be demonstrated, self-guided tours for "walk-in" visitors, and written descriptions of treatment areas, including before-and-after photographs, stand conditions, product recovery, and production rates.

Recommendation

DNRC recommends that this project be funded in the full application amount of \$139,863.

J. Project: Triangle Area Saline Seep Control

Applicant: Triangle Conservation District

Grant Request: \$303,755

Grant Recommendation: \$303,755

Total Points: 45

Description:

The Triangle Conservation District, which is composed of ten conservation districts in north central Montana, received a RRD grant of \$241,000 from the 1979 Legislature to reclaim land affected by saline seep. A seep is caused when more moisture is available in the soil that can be used by the crop. The excess moisture moves downward through the soil, dissolving salts until it reaches an impermeable layer. It flows along this layer until it reaches a low place where the impermeable layer is close to the surface. The water then comes to the surface and the seep forms. The area contributing the excess moisture is known as the recharge area.

The procedure followed by the Triangle staff is this: a team working for the District meets with farmer who has applied for assistance. The team drills wells to obtain soils information and to locate the seep recharge area. A map of surface and ground water elevations is prepared and a plan is completed which contains management recommendations for the operator.

Due to a number of organizational and institutional hurdles, the work team did not start until January 1980; by then 73 applications for assistance had been received. It is anticipated that by June 30, 1981, applications for assistance on 246 sites will have been received, covering 11,750 acres. As of June 30, 1980, work had begun on 78 applications covering approximately 4,500 acres.

A second RRD grant of \$303,755 is being sought to continue the program so that new applications, as well as the backlog, can be handled.

Analysis and Recommendation

DNRC is recommending this project for funding a second time because it was slow in starting due to red tape; it has been well received as evidenced by the number of applications and it has the potential of successfully treating one of state's largest land use problems.

K. Project: Control of the Weed Leafy Spurge

Applicant: Department of Natural Resources and Conservation -
Conservation Districts Division

Grant Request: \$30,000

Grant Recommendation: \$30,000

Total Points: 44

Description:

Leafy spurge is a noxious weed affecting approximately 550,000 acres of rangeland in Montana. Cattle will not eat it and it is very difficult to eradicate. Research shows that the use of the herbicide Tordon gives long time control of leafy spurge when used in the correct amounts and with proper application. There is a need to show land occupiers that this method of control will work. Observations of present use indicate improper application rates and improper followup. This demonstration project would serve to involve many people and assist them in controlling leafy spurge on their land.

It is proposed that \$30,000 of RRD Funds be made available on application by selected County Weed Districts to:

1. Select leafy spurge infestations throughout the county to be used as demonstrations to show neighboring farmers and ranchers proper application of the herbicide Tordon.
- 2) Enter into an agreement with the landowner to maintain the site as a demonstration area. The results of the

application will be monitored. The site will be available for on-ground inspection by tours of interested land occupiers.

- 3) Accurate records will be kept of the management of the land area as information is passed on.
- 4) The County Weed District will enter into an agreement with DNRC to carry out these activities. The County Weed District will perform the tasks outlined in accordance with the recommendations of the State Extension Weed Specialist. The Weed District will employ necessary personnel to carry out the project.
- 5) DNRC will pay the district to set up and treat the sites initially.
- 6) Involvement of a maximum number of landowners will be secured to participate in observation, and in the education aspects of the demonstration.
- 7) A 50/50 match will be required from the landowners.

Analysis and Recommendation

The DNRC finds that this project meets the intent of the program and recommends a grant of \$30,000.

L. Project: Control of Ennis Lake Thermal Problem

Applicant: Blue Ribbons of the Big Sky Areawide Planning Organization

Grant Request: \$125,000

Grant Recommendation: \$125,000

Total Points:41

Description

Blue Ribbons of the Big Sky Areawide Planning Organization has applied for \$125,000 on behalf of the Madison River Thermal Steering Committee for preliminary engineering design and cost estimates and to evaluate the economic, environmental and legal implications of the three selected alternatives for correcting the Madison thermal problem. Data collected during the past decade indicates that Ennis Lake is the cause of the problem. WPRS has developed a lake-river model for evaluating the technical feasibility of various alternatives. The applicant will use funds to evaluate the engineering, social, environmental, and legal aspects of the technically viable options.

Recommendation

DNRC recommends this project be funded for the amount requested - \$125,000.

M. Project: Development of Trails

Applicant: Department of Fish, Wildlife, and Parks

Grant Request: \$46,500

Grant Recommendation: \$46,500

Total Points: 41

Description:

As the table below indicates, use pressure on Montana's recreation trails is increasing. With increasing use and increasing energy costs, there is a greater need for trails near urban areas, to minimize trail use conflicts, to develop facilities, particularly for winter trail users, and to provide trail activity education to users.

Recreation Trail Activities

Recreation Occasion Increases in Montana (projected in the
1978 State wide Comprehensive Outdoor
Recreation Plan 1.)

Activity	July, 1976 Participation	July, 1990 Projected Participation
Backpacking	272,457	376,162
Horseback Riding - Trails	103,403	141,965
Bicycling	168,334	227,653
Walking	556,251	782,405
4-Wheel Driving	346,796	475,751
Motorcycling	308,768	419,336
Activity	February, 1976 Participation	February, 1990 Participation
Cross-Country Skiing	277,789	384,555
Snowshoeing	83,897	114,517
Snomobiling	409,247	553,404
TOTAL Recreation Trail Activities	2,476,942	3,475,748

This application, for \$46,500, would fund a Trails Coordinator in the Parks Division (DFWP) for two years who would conduct feasibility studies for trails as well as coordinate between user groups, funding agencies, and others involved in using and developing recreational trails.

Analysis and Recommendation

Since there is a public need for these services, DNRC recommends that this application be funded at the requested level of \$46,500.

N. Project: Rangeland Resource Development

Applicant: Conservation Districts Division--Department of Natural Resources and Conservation

Grant Request: \$500,000

Grant Recommendation: \$490,000

Total Points: 40

Description:

The 1979 legislature granted the DNRC \$300,000 to establish a Rangeland Resource Loan Program. This program has made zero-percent interest loans (at a maximum of \$20,000 per loan) to ranchers and farmers for fencing, grazing systems, grazing management, erosion control, stock water development, and grass seeding. Twenty loans, totaling \$263,270 have been closed, and three are in the process of being closed. Since there appears to be continued interest in the program, the Conservation Districts Division of the DNRC has applied for \$500,000 to continue the program.

No administrative funds were allowed for the FY 80 and 81 biennium, but due to complex loan procedures, DNRC is requesting that 4 percent of the allocated funds be used for administration.

Analysis and Recommendation

Because the Rangeland Resource Loan Program has been well received by the ranchers and farmers, and scored well when compared to other applications, DNRC recommends that \$490,000 be allocated to this project. This amount is 20 percent of funds projected to be available at the time the applications were considered and is the maximum which DNRC will recommend be allocated to a single project. No funds will be used for administration.

O. Project: Dam Repairs

Applicant: Department of Fish, Wildlife, and Parks

Grant Request: \$200,000

Grant Recommendation: \$200,000

Total Points: 40

Description:

The state of Montana is cooperating with the U.S. Corps of Engineers in conducting the Federal Dam Safety Program, pursuant to P.L. 92-367. This program includes a field inventory of all dams in the state; followed by an inspection of those which are hazardous. The Department of Fish, Wildlife, and Parks has been informed that many of its dams require some degree of repair. The Department has applied to RRD for funds to study, design, and administer construction of these dam repairs. Since the final reports from the inspection program are incomplete at this time, the Department can make only preliminary judgements as to what its priorities will be. At this point, plans are to rehabilitate Galtside Reservoir near Sidney and Bearpaw Reservoir near Havre. Engineering study and design for these two projects will be approximately \$80,000. The remaining money will be used for construction.

Analysis and Recommendation

These dams are valuable to the state, and must be maintained to avoid liability and possible loss of life. This project has scored reasonably well in comparison with other applicants; DNRC recommends \$200,000 be granted to this applicant.

P. Project: Mystic Lake Dam Repairs

Applicant: City of Bozeman

Grant Request: \$45,375

Grant Recommendation: \$60,000 (set aside)

Total Points: 36

Description:

The Bozeman Creek Reservoir Association owns and operates Mystic Lake Dam. The City of Bozeman owns ten of the 20 shares in this Association; local farmers own the remaining ten.

The earth-filled dam impounds 1,520 acre-feet of water on Bozeman Creek, 12 miles southeast of Bozeman. It was damaged during 1977 and has been determined to be hazardous by the Federal Dam Safety Program being conducted by the U.S. Corps of Engineers in cooperation with the state of Montana. The City of Bozeman has applied to RRD for funds to conduct a feasibility study to determine which repair alternative should be pursued. After the study is completed, final design work, construction drawings, and specifications will be completed. The City of Bozeman will then seek financing for dam repair.

Analysis and Recommendation

DNRC concludes that Mystic Lake is an important source of stored water to the area and that this dam should be repaired. The

Department therefore recommends \$60,000 be set aside to the City of Bozeman for the pre-construction work. The actual amount of the grant will be for the lowest of three bids.

Q. Project: Planning for Solid Waste Management

Applicant: Solid Waste Bureau--Department of Health and Environmental Sciences

Grant Request: \$200,000

Grant Recommendation: \$200,000

Total Points: 33

Description:

In 1977, DHES received RRD funds to be granted to local governments throughout the state to conduct detailed solid waste management planning. Local governments have been responsive to this program, and the majority of these areawide planning projects have been completed. However, there are additional counties that are interested in solid waste plans. They would use funds to hire consultants to determine which disposal, recycling, and resource recovery alternatives are feasible for their areas. The following map shows (in gray) the counties that are involved; DHES has applied for \$200,000 in additional funds to continue this program.

Analysis and Recommendation

Because this program has proven successful and has widespread participation among the counties, DNRC recommends that it be continued and \$200,000 be granted.

MONTANA

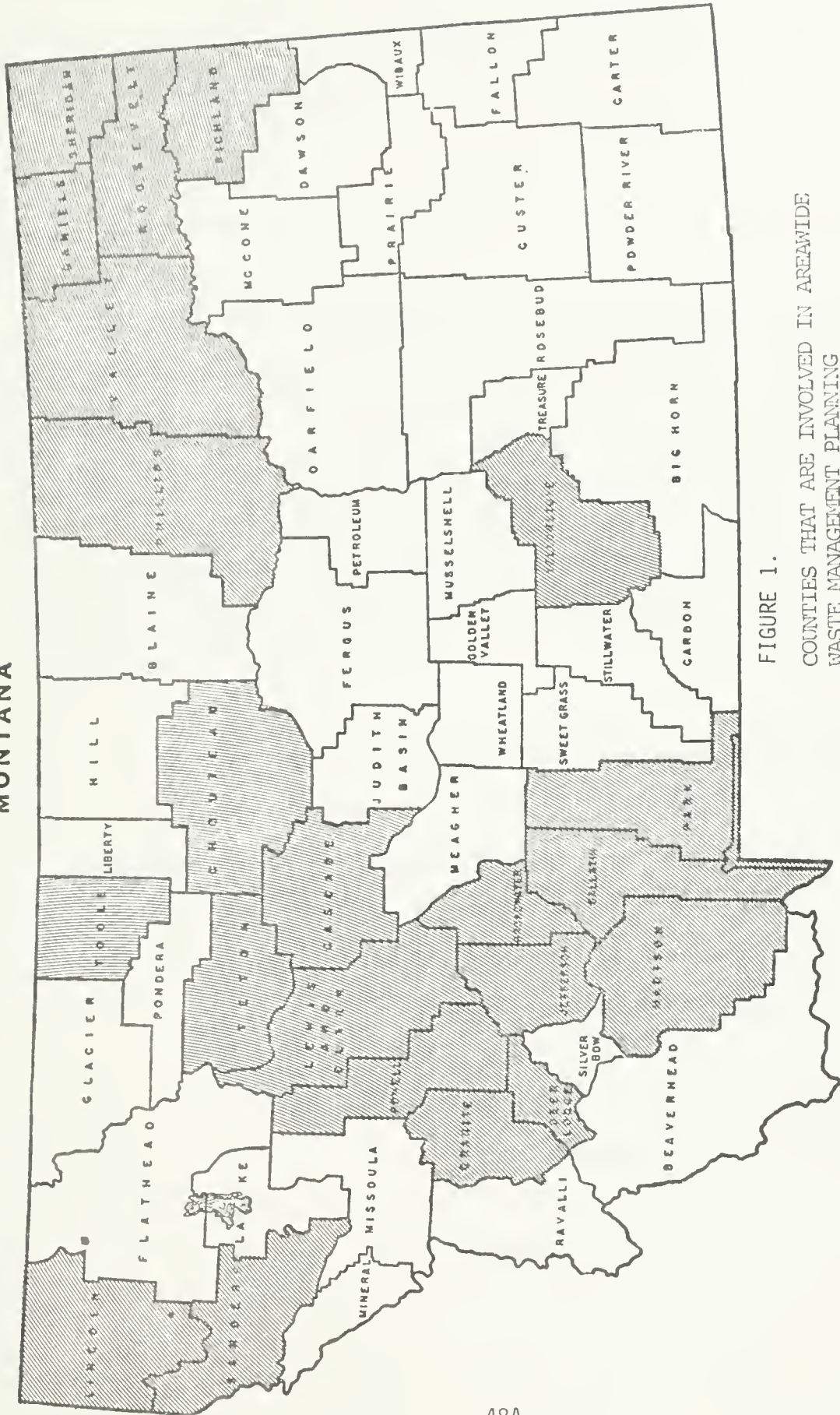


FIGURE 1.
 COUNTIES THAT ARE INVOLVED IN AREAWIDE
 WASTE MANAGEMENT PLANNING
 (Funded by the Solid Waste Management Bureau)
 June 30, 1980

R. Project: Streambank Preservation

Applicant: Department of Fish, Wildlife, and Parks

Grant Request: \$100,000

Grant Recommendation: \$100,000

Description:

The 1970 legislature granted DFWP \$100,000 from RRD to establish a streambank preservation program to preserve stream habitats by encouraging proper development that minimized harmful effects on the state's fish and wildlife resources. There is also money to repair existing damage to streambanks. Eligibility is by consensus of the landowners involved, soil and water conservation districts, and DFWP; grants are limited to \$5,000 per project. None of the funds were used for administration of the project.

To date the funds have allocated as follows:

City of Livingston for the restoration of Fleshman Creek	\$5,000
Hydrologic analysis of proposed re-establishment of the original channel Dupuyer Creek	\$ 200
Prickly Pear Creek Study and Restoration Project-Aerial photography	\$ 600
TOTAL	\$5,800

Analysis and Recommendation

The projects funded to date have public benefits but no payback capabilities, the kind that may not be undertaken without public funds. This program has funds remaining from the past biennium, but has many applications under consideration, so that half of the remaining funds should be committed by January, 1980. DFWP feels that interest in the program indicates they will be able to use an additional \$100,000 in the upcoming biennium-FY 82 and 83. DNRC recommends that these funds be granted.

S. Project: Lighting for Lewis and Clark Caverns

Applicant: Department of Fish, Wildlife, and Parks--Parks Division

Grant Request: \$50,000

Grant Recommendation: \$50,000

Total Points: 26

Description:

This application proposes a grant of \$50,000 to replace, renovate and upgrade the lighting system in Lewis and Clark Caverns State Park. The funding would be used to pay consulting fees for the design of the lighting system, pay for the construction, and reimburse the Architecture and Engineering Division of the Department of Administration for administrative costs.

Analysis and Recommendation

Since recreation is considered by the RRD law to be a renewable resource, this project meets the intent of the Renewable Resource Development Program. DNRC recommends that \$50,000 be made available for this project.

T. Project: Assistance to Conservation Districts on the
Yellowstone River in Developing Their Water Reservations

Applicant: Conservation Districts Division--Department of Natural
Resources and Conservation

Grant Request: \$300,000

Grant Recommendation: No funds be allocated

Total Points: Not scored

Description:

The Conservation Districts Division of the Department of Natural Resources and Conservation has applied for RRD funds to assist local Conservation Districts in the application for and development of water reservations.

Conservation districts in the Yellowstone Basin hold water reservations; part of this money would assist them in developing the detailed plans required to retain these reservations.

In addition, districts in other areas in Montana will need to make plans to reserve water for agriculture. This will require feasibility studies of water development on site specific acreages and development of rules and administrative procedures for their water rights and use of reserved water.

The request, for \$300,000, would be used to hire five Water Resources planners in DNRC: one to be assigned to the Water Resources Division and the Conservaton Districts Division; one

assigned to the 7 Conservation Districts in the Lower Yellowstone Basin; one for the 7 in the Upper Yellowstone; one in the Missouri Basin; and one in the Columbia Basin.

Analysis and Recommendation

The work proposed in this application needs to be done. The Department wants to assist in the development of the water reservations of the Yellowstone. However, under a policy adopted by the Director of DNRC, RRD funding will not be recommended for appropriation to the Department which increases its own staff and budget, because a conflict of interest in the Departments recommendations must be avoided. DNRC will seek funds for this work elsewhere.

U. Project: Cropping Specialist

Applicant: Montana Cooperation Extension Service

Grant Request: \$99,959

Grant Recommendation: No funds to be allocated

Total Points: Not scored

Description:

Flexible cropping promises to improve agricultural efficiency and protect soil and water resources. As an alternative to crop-fallow rotation, it bases crop decisions on available soil moisture, and can help control saline seep.

A strict crop-fallow rotation can cause saline seep. In those fallow years when soil moisture is sufficient to support a crop, but none is planted, the soil moisture can contribute to seep development. In a flexible cropping system, a crop would be planted if soil moisture were sufficient - and would use moisture which would have contributed to saline seep.

The objective of this \$99,959 proposal is to make farmers aware of recent research in dryland cropping and to encourage adoption of flexible cropping systems across the state. A cropping systems specialist would be retained through the Montana Cooperative Extension Service, and would conduct demonstration projects, disseminate information, and help secure additional funding.

Recommendation

DNRC finds that this proposal does not meet requirements defined by law and recommends that no funds be allocated for this application.

V. Project: Instream Flow Quantification and Preparation of S.B. 76 Filings

Applicant: Department of Fish, Wildlife, and Parks

Grant Request: \$51,632

Grant Recommendation: No funds be allocated

Total Points: Not scored

Description

The Department of Fish, Wildlife, and Parks is engaged at present in a comprehensive program to quantify instream flow needs for fish, wildlife, and recreation on selected river basins of the state. The basins selected for instream flow quantification are: 1) particularly vulnerable to dewatering, 2) areas of high aquatic resource value, or 3) have unique features.

These instream flow values will be required for filing water right claims on the 12 "Murphy's Right" streams identified by Chapter 345 Session Laws of 1969, which allowed the state through, the Department of Fish, Wildlife, and Parks, to obtain water rights for instream flow in selected rivers.

DFWP has applied to RRD for money to fund a 2-year coordinator position for its instream flow and SB 76 (Water Rights Adjudication) programs. This person would coordinate all DFWP activities associated with the requirements of SB 76. In addition to quantification of instream flows on the Murphy streams, the

Department must compile a master listing of all water rights associated with lands administered by DFWP, ensure that these rights are documented and filed, and provide guidance and technical assistance to field personnel involved in SB 76 tasks. After SB 76 filings are complete, the coordinator would provide updated information for any contested claims.

This person would also meet additional requirements for the Yellowstone reservations in order to keep these reservations valid.

Analysis and Recommendations

While this application describes tasks which must be completed by the DFWP, these tasks do not fit requirements of the RRD program as described by law; therefore, the DNRC recommends that no funds be allocated.

W. Project: Small Water Projects Construction Loan Program

Applicant: Conservation Districts Division

Grant Request: \$500,000

Grant Recommendation: No funds be allocated

Total Points: Not scored

Description:

This application proposes that a Water Project Revolving Fund be established within DNRC to provide zero-interest ten-year loans to individuals or groups desiring to develop water projects. Loans would not exceed \$50,000 per person or group. Applications would be received by a local conservation district, screened and forwarded to the DNRC Conservation Districts Division, together with district-approved conservation plans for each unit involved, and a copy of the preliminary design for the proposed structures. A first or second mortgage on real property equivalent to one and one-half times the value of the loan would be required.

A four percent fee would be withheld for DNRC administrative costs, which would amount to \$20,000 of the \$500,000 requested.

Analysis and Recommendation

This project meets the goals of the Renewable Resource Development program; however, DNRC recommends that it not be funded at this time because the Legislature will be considering a program

very similar to this in DNRC's proposed Water Development Program. Water development projects as envisioned in this application would be funded under a Water Development Program which will be proposed by DNRC and the Governor during the 1981 Legislature.

X. Project: Solar Kiln for Commercial Drying of Lumber

Applicant: University of Montana School of Forestry

Grant Request: \$67,161

Grant Recommendation: No funds be allocated

Total Points: Not scored

Description:

The lumber industry has approached the University of Montana School of Forestry, expressing an interest in cooperative research in commercial solar drying kiln development. Lumber drying uses 60-70 percent of the total energy consumed by the forest products industry in raw material processing. Research on solar lumber kilns has been conducted in several areas of the United States including Wisconsin, Colorado, Pennsylvania, Virginia, and Puerto Rico. However, before application of this technology on a commercial level can begin, research showing that it is feasible in Montana's climate must be available to justify the cost. This application for \$67,161 is intended to fund the initial research.

Analysis and Recommendation

DNRC also administers the coal tax funded Renewable Energy Grant Program through its Energy Division. Coordination of that program and the RRD Program is essential to avoid duplication of effort. Therefore, the application has been forwarded to the Energy Division. The DNRC will fund this particular application under its

Renewable Energy Grant Program if sufficient funds are made available.

Y. Project: Soils Survey

Applicant: Conservation Districts Division--Department of Natural Resources and Conservation

Grant Request: \$300,000

Grant Recommendation: No funds be allocated

Total Points: Not scored

Description:

The Soil Conservation Service has an ongoing soils inventory program in Montana, which is scheduled to continue until 1999. To date, 60 percent of the state's acreage has been surveyed, described, classified, and mapped. This work is valuable to Montana because it can be used to make wise land use decisions recognizing the potentials of soils and is important for all development planning.

Land is still being put to use without a full awareness of its inherent limitations and capabilities. In the past, the state of Montana has contributed no direct funding to the \$1,000,000 yearly cost of this ongoing survey. Since the state is mandated to adopt a statewide soil survey plan and conduct a soils survey by the "Montana Soil Survey Act" (HB 377), the Conservation Districts Division of DNRC has applied for \$300,000 as the state's contribution for the upcoming biennium. This money would be used to help attain the objectives of the program, which are to: complete field mapping and publication of soils surveys for the

entire state, evaluate all soils for use potential, obtain necessary chemical and physical data, improve soil resource information delivery systems and coordinate work among agencies involved in the survey. A long term funding source will be necessary for Montana to maintain active participation in this work.

Analysis and Recommendation

While this work is very important to the State of Montana, it does not meet the requirements of the RRD Program. RRD grant funds must be expended for "the purchase lease, or construction of projects for the conservation, management, utilization, development or preservation of the land, water, fish, wildlife, recreational, and other renewable resources of the State". Monies can also be granted for feasibility and design studies of such projects or their rehabilitation, expansion, and maintenance. Since the soil resource inventory plan does not fit these definitions of how RRD funds are to be spent, the Department recommends no funds be awarded to the soils inventory. The Department in separate legislation will be recommending that soils surveys be partially financed from the income on the Resource Indemnity Trust Fund which is also funded by the coal tax.

Z. Project: Water Impoundment Structures Developed in Association with the Tongue River Railroad

Applicant: Department of Fish, Wildlife, and Parks

Grant Request: \$500,000

Grant Recommendation: No funds to be allocated

Total Points: Not scored

Description

The Tongue River Railroad, Inc. is proposing to build a rail line between Decker and Miles City. The railroad is willing to participate in efforts to preserve streams, riparian habitat, and agricultural land that will be affected by construction. The Department of Fish, Wildlife, and Parks has applied for \$500,000 from RRD to be used in conjunction with railroad monies for this purpose. Specifically, one of the proposed projects is to use railroad fill to impound water in narrow coulees crossed by the railroad. These impoundments would be used for waterfowl habitat, fishing, or on-stream storage sites along the lower Tongue River.

Analysis and Recommendation

DNRC feels that this is a worthwhile project and could be an appropriate use of RRD funds. However, at this time plans to build the railroad are indefinite and if the line is built, construction will not begin until 1982 at the earliest, according to railroad sources. DNRC has determined that it would be preferable for DFWP

to prepare an application for the 1983 legislature that would include specific engineering and development plans. Therefore, DNRC recommends no funds for this project at present.

V. STATUS OF PROJECTS RECOMMENDED FOR FUNDING IN 1979.

1. Biological Weed Control - \$38,200

Biological Weed Control uses natural predators of specific weeds to reduce weed population. The 1979 Legislature appropriated funds for the biological weed control program at Corvallis, MT for the biennium ending June 30, 1981.

This program was started four years ago and since that time 15 different insect species have been used as potential biological control agents against nine noxious weeds in the state. In 1979 two new insect species were released and in 1980 for the first time insects were released for control of spotted knapweed. Usually it takes at least ten years before any effects can be seen from this program because it takes that long for an insect species to multiply to effective levels.

Specifically, this money was intended to allow the Western Agricultural Research Center to expand the distribution of these

established insects into central and eastern Montana in such ways as:

- a. granting \$3,000 per year to the USDA, SEA Biological Control of Weeds Laboratory in Albany, California to be used in foreign search for new insects.
- b. collecting insects from populations established in Canada and release of these insects in Montana for weed control.
- c. purchase laboratory equipment.

Some of the objectives of this contract could not be met because there were none of the Canadian species of insects available for use on the project. All of the \$38,200 that was appropriated by the 1979 legislature will be expended by the end of the fiscal year on related aspects of the project.

2. City of Deer Lodge - \$5,250

The City of Deer Lodge received an RRD grant of \$5,250 or 25 percent of all funds expended for the necessary improvements to the City's park area, whichever is less, for the fiscal year ending June 30, 1981.

The grant was for beautifying thirty-four acres of state land leased by the City next to the southern boundary of Deer Lodge. Project activities were to include landscaping, and planting trees, shrubs and grass.

Because the project involved disturbance of a local aquatic system, an Army Corps of Engineers 404 permit was required; this permit has not yet been approved. Therefore, there has been no money spent on the project, and the completion time remains contingent upon the issuance of the 404 permit. The City of Deer Lodge is requesting an extension of its contract.

3. City of Kalispell, Lawrence Park - \$327,680

The City of Kalispell received an RRD grant for 25 percent of all funds spent up to \$327,680 to develop park and recreation facilities in Lawrence Park, an existing 60-acre partially developed park owned by the city.

Kalispell has not been able to obtain matching grant money for the project, and it is expected that the city will release the appropriated RRD money, which will revert back to the RRD account.

4. City of Livingston - \$114,700

The City of Livingston received \$114,700 or 25 percent of all funds expended for the park improvements, whichever is less, for the fiscal year ending June 30, 1981, to rehabilitate Sacajawea Park Lagoon and Fleshman Creek.

The project will include rehabilitating the lagoon by removing sediment, eliminating pollution sources, landscaping banks,

creating a meandering stream through the city, improving water quality conditions, and providing blue ribbon trout waters for recreational use.

The project has been awarded a \$232,000 grant from EPA's Clean Lakes Program. This is the first grant from this program in Montana, and the second largest this federal region. It is regarded as a demonstration project by EPA.

The plans and engineering specifications for this project are complete. Bids are out and the contract will be awarded. The project will be complete and reports filed by January 1982.

5. Cove Irrigation Company - \$40,000

The Cove Irrigation Company received an RRD grant for 5 percent of all funds expended up to \$40,000 to make repairs on its main canal, which originates approximately 7 miles upstream from Park City.

Approximately \$36,000 in consultant fees has been spent on repairs to the ditch. It is expected Cove will be reimbursed for 5 percent of this money. Since the Irrigation Company has not been successful in obtaining matching funds to complete all of the necessary repairs, the total RRD grant of \$40,000 will probably not

be spent by the end of the fiscal year. The money will then revert to the RRD account and be available for re-allocation.

6. Department of Fish, Wildlife, and Parks

a. Streambank Preservation Program - \$100,000

The purpose of this program is to preserve stream habitats by financially assisting land owners in the design, planning, construction, or alteration of streambank projects. Landowners receiving assistance from RRD funds are asked to have matching funds for the projects.

Examples of projects whose funding has been approved are:

- 1) a request for \$5,000 by the City of Livingston for assistance with restoration of Fleshman Creek,
- 2) \$600 for the initial phase (aerial photography) of the Prickly Pear Creek Study and Restoration Project.

The entire \$100,000 grant is expected to be committed by the end of this fiscal year.

b. Lewis and Clark Caverns Tramway and Railway - \$275,000

In addition to the Renewable Resources Development Act appropriation, the Legislature also appropriated through House Bill 417, \$264,000 from the Bonds, Proceeds, and Insurance Clearance Account (Long Range Building Fund). This appropriation was offered as a cash settlement to Link Brothers Concessionaires in lieu of the court ordered equipment restoration. However, since this amount was less than the Link Brothers were willing to accept at that time, the state had no alternative but to proceed diligently under the Supreme Court order to restore the equipment and return it to the Link Brothers no later than February 28, 1981.

This project was terminated on June 30, 1980, after the expenditure of \$18,800, which went for engineering fees, building code, and advertising fees when Link Brothers Concessionaires accepted the cash settlement. The remainder of the appropriation in the amount of \$256,299 was returned to DNRC without further encumbrance.

7. Department of Administration - \$383,700

1. Lambeth Recreation Area, Dept. of Fish, Wildlife, and Parks
- \$50,000

DFWP received a \$50,000 RRD grant to be matched by federal funds for the purpose of improving and adding recreational facilities at Lambeth Recreation Area in Lake County. To date, \$7,660 has been spent from the RRD appropriation. This money was used for design and engineering consulting fees for preliminary well drilling specifications, advertising for bids, supervision, and for a water well drilling contract. It is anticipated the entire grant amount will be spent by the end of the fiscal year.

2. Lost Creek State Park, Dept. of Fish, Wildlife, and Parks - \$87,500

Lost Creek State Park in Deer Lodge County, received a \$87,500 RRD grant from the 1979 Legislature to be administered by DFWP. This grant was to be matched with federal funds, and used for an improved access road and some minimal recreation facilities improvements. To date \$8,427 has been spent, but it is anticipated the entire grant will be spent by the end of the fiscal year.

3. Maintenance, Forestry Division, DNRC - \$46,200

DNRC's Forestry Division received a \$46,200 RRD grant for building maintenance. This project is complete and all of the grant money has been spent.

4. Construction of a nursery greenhouse, Forestry Division,
DNRC - \$200,000

A grant of \$200,000 was also granted to the DNRC Forestry Division for the construction of a nursery greenhouse in Missoula. A contract has been awarded for this project and the money will be spent by the end of fiscal year 81.

8. Glen Lake - \$33,750

Glen Lake Irrigation District near Eureka, Montana, received a grant for 5 percent of all funds expended for irrigation system improvements, or \$33,750, whichever is less, for the biennium ending June 30, 1981. The irrigation system improvements are part of a total rehabilitation program for the irrigation district.

To date approximately \$85,000 has been spent of the project so that the expenditure from RRD has been \$4,250.

The total grant of \$33,750 will probably not be spent by the end of this fiscal year as the irrigation district does not have the matching funds for the rest of the grant.

9. Rangeland Resources Program - \$300,000

The 1979 Montana State Legislature included an amount of \$300,000 in the RRD appropriation for a pilot program for Rangeland Improvements loans. The loans were available statewide for range improvements, such as grazing systems and management, grass seeding, fencing, erosion control, stock water development, and any other rangeland improvement related projects.

Each loan is interest free, with a maximum limit of \$20,000 per loan. Of the \$300,000 appropriated, twenty loans have been closed, and three are in the process of being closed.

This has been a successful program and applications for loans have already been received for the next biennium. A request for \$500,000 is being made to continue the program for the next biennium, and DNRC is recommending they receive \$490,000.

10. Triangle Conservation District Saline Seep Program - \$241,000

The Triangle Conservation District was awarded a \$241,000 grant by the 1979 Legislature to fund a saline seep abatement team in the Triangle Area. The Triangle Area consists of the ten Conservation Districts--Big Sandy, Blaine County, Cascade County, Chouteau, Glacier County, Hill County, Liberty County, Pondera County, Teton County, and Toole County.

Since January 1, 1980, 246 applications have been received by the Conservation District from individual farmers and ranchers; action has been taken on 164 of these applications, and approximately 9,000 acres have been treated.

When the Conservation District receives an application, the team visits the site and discusses the saline seep situation with the farmers. The team then drills wells to determine the location of the seep recharge area. A topographic map of the water surface is drawn which shows the recharged area. The team returns to talk to the farmer and work with him to develop a cropping plan for the recharge area. One well is left open in the seep area to monitor the water levels.

This program has been extremely successful. The Conservation District is seeking an extension until January 1, 1982, to expend the entire \$241,000. It has applied for another grant from the Renewable Resource Development Account for \$304,000 for the next biennium; DNRC is recommending the Triangle District receive this grant.

In addition, in 1978, money for projects at Nevada Creek and the North Boulder Drainage District were re-allocated from the prior biennium.

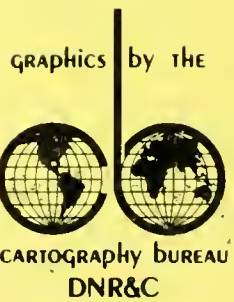
Table 3 gives a re-cap of the projects which have been funded by RRD throughout its history.

Table 3. Projects Funded by RRD Throughout Its History

Applicant	Project Description	Year	Amount	Status
North Boulder Drainage District	Multi-purpose reservoir in the Boulder Valley.	1977	\$500,000	The appropriation was not used by 1979. The '79 legislature extended the appropriation until '81. It remains unused.
DHES-Solid Waste Bureau	This money was to be used by communities for planning and installation of areawide land fills.	1977	\$300,000	The appropriation was extended through '81. The money has been spent and DHES is seeking more RRD funds this session.
West Bench Irrigation District	The funds were used by the District to help cover the cost of converting the irrigation system to a pressure-gravity operation.	1977	\$ 90,000	The money was spent and the project has been completed.
Nevada Creek Water Users Association	Design and construction of repairs to the irrigation distribution system.	1977	\$ 50,000	The appropriation was not used by 1979; the legislature extended the appropriation through 81. The project is now completed.
Legislative Council	A study of water rights adjudication methods.	1977	\$ 60,000	The study was completed and resulted in SB76 being introduced in the 1979 legislature. \$33,000 reverted to the RRD fund \$30,000 of which was re-appropriated by the 1979 legislature to the Water Resources Oversight Committee.
Montana Department of Agriculture	Biological Control of weeds	1979	\$ 38,200	The project has been completed.

City of Deer Lodge	Improvements to a city park area.	1979	\$ 5,250	No money has been spent due to difficulties in obtaining necessary permits. DNRC recommends an extension for this application.
City of Kalispell	Development of Lawrence Park	1979	\$327,680	Kalispell has been unable to obtain matching grant money. It is expected that these funds will revert to RRD account.
Cove Irrigation Company	Repairs to main irrigation canal	1979	\$ 40,000	Cove has been unable to obtain matching grant money. It is expected that about \$38,000 will revert to the RRD account; the remainder having been spent on consultant fees.
DFWP-Streambank Preservation	Financial assistance to land owners in design, planning and construction of streambank projects	1979	\$100,000	It is expected that all of the funds will be spent in the current biennium. DFWP is seeking an additional \$100,000 this session.
DFWP-Lewis and Clark Caverns Tramway	Repairs to the tram and railway at Lewis and Clark Caverns	1979	\$275,000	This project was terminated after \$18,800 had been spent of engineering and other fees. The remainder reverted to the RRD account.
DFWP-Parks Division	Improving Recreation facilities at Lambeth Recreational Area in Lake County	1979	\$ 50,000	It is anticipated that this project will be completed in this biennium.
DFWP-Parks Division	Improved road access to Lost Creek State Park, Deer Lodge County.	1979	\$ 87,500	It is anticipated that these funds will be spent in this biennium.
DNRC-Forestry Division	Building maintenance	1979	\$ 46,200	This project has been completed and the funds expended.
DNRC-Forestry Division	Construction of a nursery greenhouse.	1979	\$200,000	A contract has been awarded and the project will be completed this biennium.

Glen Lake Irrigation District	Irrigation system improvements	1979	\$ 33,750	The District has been unable to obtain matching funds. It is unlikely that this project will be completed in the current biennium.
DNRC-Conservation Districts Division	Loans to private individuals for rangeland improvements	1979	\$300,000	This money will be spent in the current biennium. An additional \$490,000 is being recommended for funding in the 82-83 biennium.
Triangle Conservation District	Saline seep abatement	1979	\$241,000	This project is on-going. DNRC is recommending an extension of this appropriation plus an additional appropriation of \$304,000 for the 82-83 biennium.



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